Savannah River Site Lessons Learned Program

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Last 5 Best Practices/Lessons Learned

ID	Title	Type
2004-LL-0038	Heat Trace Junction Box Malfunction (Oak Ridge)	Special Information Notice
2004-LL-0037	Proper Training and Understanding of Workplace Regulations Emphasized as WSRC Personnel Accept Different Work Assignments (SRS)	Special Information Notice
2004-LL-0036	Near Misses Occur As A Result of Valve Lineup Errors - Consequences Could Be Disastrous To Plant Equipment and Personnel (DOE)	Special Information Notice
2004-LL-0035	Immediate Review Required for Applications of WSRC Manual 8Q, Procedure 36 (Process System Access)	First Alert
2004-LL-0034	Genie Superlift Advantage Duct-Jacks With Broken Snap Pins (WGI)	First Alert

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Reviewed by Rod Hutto 11/4/2002

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Savannah River Site Lessons Learned Program

Introduction

Program Description:

The WSRC Lessons Learned Program implements a systematic review of the operating experiences at Savannah River Site facilities, similar DOE complex facilities, and commercial nuclear industry facilities for the purpose of preventing events and eliminating recurring events.

The Site Lessons Learned Group administers the program by screening and distributing applicable lessons learned information. Business Unit/Project Lessons Learned Coordinators (assigned by Business Unit Directors) are matrixed to the Site Lessons Learned Group and are responsible for implementing and directing their own Business Unit/Project Lessons Learned Program. These programs will effectively evaluate issues distributed by the Site Lessons Learned Coordinator and implement appropriate corrective actions. The Site Lessons Learned Coordinator tracks the evaluations and corrective action implementations that are input into the Site Lessons Learned Corrective Action Database by the Business Unit/Project Lessons Learned Coordinators. The Site Lessons Learned Coordinator also provides oversight for all Business Unit/Project Lessons Learned Programs.

The WSRC Lessons Learned Program has established the following objectives to support its mission:

1. Advocacy -- Proactively advocate an organizational culture that recognizes the value of lessons learned information and makes information sharing an integral part of daily work activities.
2. Awareness -- Promote awareness at all levels of the WSRC workforce of the lessons learned resources available to support lessons learned information development and sharing at WSRC.
3. Knowledge Networks -- Build and/or expand information sharing networks and tools that contribute to the identification, sharing, and use of lessons learned information.

Lessons Learned Procedure:

The program is defined in WSRC Manual 1B, MRP 4.14, Lessons Learned Program, and is the responsibility of the Regulatory Services Section of the Technical and Quality Services Department, which is part of the Field Support Services Business Unit.

Program Products:

Directive (Highest Priority)	**A MUST DO directive from WSRC President to Senior Staff**
Bulletin	**Business Unit Lessons Learned Coordinators MUST RESPOND**
Product Information Notice	**Business Unit Lessons Learned Coordinators MUST RESPOND**
Special Information Notice	**Business Unit Lessons Learned Coordinators No Response Required**

During the First Quarter of 2004, the WSRC Lessons Learned Program will also provide Initial Alert and Best Practices Lessons Learned products to

WSRC.

Site Lessons Learned Group

Function	Name
Site Lessons Learned Coordinator	Rod Hutto
Site Lessons Learned Group	Cheryl Robinson
Site Lessons Learned Group	Doc Watson
Site Lessons Learned Information System	Andy Lines

Lessons Learned Program
Project Lessons Learned Coordinators

Project	Coordinator
Construction and Startup Services	L.J. Lamberth
Defense Programs	A.R. Beckwith
Design Services	L.J. Lamberth
Environment Safety and Health Services	C.L. Robinson
F Area Closure Projects	P.S. Gary
H Area Completion Projects	G.M. Haas
Human Resources Services	L.C. Watson
Laboratories	M.W. Pitts
Liquid Waste Disposition Projects	M.M. Brown
Management Services	L.C. Watson
Nuclear Materials Management	J.M. Dukes
Nuclear Nonproliferation Programs	Dick Tansky
Project Management Services	L.J. Lamberth
Safeguards Security and Emergency Services	L.C. Watson
Savannah River Technology Center	W.A. Stiger
Site D&D	George Morris
Soil & Groundwater Closure Projects	J. Hart
Solid Waste and Infrastructure	R.B. Meese
Spent Fuels Projects	Don Zahaba
Technical and Quality Services	C.R. Hutto, Jr.
Waste Solidification Projects	M.M. Brown

Other Lessons Learned Contacts

Expertise	Contact
Circuit Breaker Committee	Steve Collier
Diesel Generators	Bob Gross
Emergency Services	Ken Keaton
Fire Protection	Rich Lewis
Industrial Hygiene	Ed Kahal
PAAA Committee	Doug Landis
Packaging	Erich Opperman
SERB Chairman	Jim Luhring
Site Cylinder Contact	Alan Doane
Site Cylinder Contact	Larry Coleman
Site Cylinder Contact	Randall Tatum
Site Electrical Lessons Learned Coordinator	Jackie McAlhaney
Site Maintenance SME	Don Harrison
Site Pressure Protection Chair	George Antaki
Site Rigging Authority	Mike Berry
Suspect/Counterfeit Items - Controlled Products List	Jim Bukovitz
Transportation	Ted Pennington
Valve Shop Contact	Mike Clark
Valve Shop Contact	James Fulmer
Vehicle Fleet	Joey Lott
Ventilation Systems	Joe Paul

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Confined Space
Electrical/NEC

Keyword:

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Accident Analysis
Accountability
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Lessons Learned Program Information System
Categories by Year

**Click on either the category, year or the number
to view respective Best Practices/Lesson Learned Reports**

Category	2004	2003	2002	2001	2000	1999
Directive						1
Bulletin	3	1	5	2	1	
Notification		9	8	20	23	33
Special Info. Notice	31	96	77	93	35	17
Digest			37	62	23	44
Newsletter					44	193
First Alert	2					
Best Practice	2					
Product Info. Notice						

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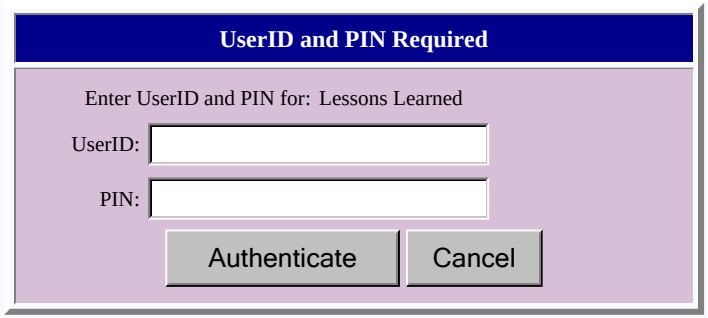
Desktop Instructions for Organization Lessons Learned Coordinators

Responsible for:

- Serving as designated points of contact for their organization for the lessons learned information formally transmitted for evaluation by the Site Lessons Learned Coordinator (SLLC)
- Determining the applicability of the lessons learned information to the departments/sections of their organization and which department/sections in their organization need to evaluate and respond to transmittals from the SLLC
- Ensuring the problem and corrective action controls from Policy Manual, 1-01,*Management Policies*, MP 5.35, "Corrective Action Program," are applied to Lessons Learned Directives, Bulletins and Notifications
- Ensuring that the corrective actions resulting from Lessons Learned transmittals are documented and categorized
- Tracking organization responses and corrective action activities for transmittals from the SLLC
- Entering/updating organization entries into the SLL Corrective Actions database:
    - Go into ShRINE and click on "Lessons Learned"
    - Click on "Corrective Actions"
    - Enter your user ID and ShRINE PIN
    - Click on the item number that you want to edit
    - Click on "Edit Action"
    - Enter corrective action in window and click on SUBMIT
- Maintaining a file of material disseminated and closure documentation
- Reporting to the SLLC on a matrixed basis
- Ensuring implementation of the Site-Level and Organization Unit level Lessons Learned Programs in the Organization
- Evaluating information received for potential Lessons Learned applicability to other WSRC Organizations / Projects
- Transmitting selected Lessons Learned information with potential Site-Wide applicability to the SLLC for final determination and possible Site-Wide dissemination
- Serving as a liaison between the Site Lessons Learned Program and the Facility Operations Safety Committee



IMPORTANT NOTE

Do not store or process Sensitive Unclassified or Classified information on this system as it is not specifically authorized for Sensitive Unclassified or Classified processing.

Lessons Learned Corrective Actions System

2004-LL-0010 Site Lessons Learned Coordinator
2004-LL-0010 Technical and Quality Services
2004-LL-0022 Site Lessons Learned Coordinator
2004-LL-0022 Technical and Quality Services
2004-LL-0030 Site Lessons Learned Coordinator

Edit Action

Print Action

Statistics Show All Actions

Exit

Lessons Learned Corrective Actions System

Corrective Actions Status Table

This charts shows the status of all Corrective Actions for the year.

Back to CA table

Chart of Average Completion Times	
2003	2004

Issue Number	2004-LL-0022
Due Date	*4/19/2004*
CFO	
Construction and Startup Services	
Defense Programs	
Design Services	
Environment Safety and Health Services	
F Area Closure Projects	
Facility Disposition Projects	
General Counsel	
H Area Completion Projects	
Human Resources Services	
Internal Oversight	
Laboratories	
Liquid Waste Disposition Projects	
Management Services	
Nuclear Materials Management	
Nuclear Nonproliferation Programs	
Project Management Services	
Public Affairs	
Regulatory Information	
Safeguards Security and Emergency Services	
Savannah River Technology Center	

Site D&D	
Soil & Groundwater Closure Projects	
Solid Waste and Infrastructure	
Spent Fuels Projects	
Technical and Quality Services	
Waste Solidification Projects	

Key	
Action Completed	
Further CA's Not Completed	
Action Not Completed	
Corrective Action Not Required	
Corrective Action Overdue	

Back to CA table

Organization: Construction and Startup Services (Print) Assigned To: L.J. Lamberth
Evaluation:
Action Completed: Not Completed

Organization: Defense Programs (Print) Assigned To: A.R. Beckwith
Evaluation:
Action Completed: Not Completed

Organization: Design Services (Print) Assigned To: L.J. Lamberth
Evaluation:
Action Completed: Not Completed

Organization: F Area Closure Projects (Print) Assigned To: P.S. Gary

Evaluation:

There have been two occasions of fasteners loosening on hoist braking systems in the L-Reactor Facility. I have been asked whether this has bearing on the H-area remote cranes. The short answer is no. The basis for this conclusion is explained below.

History & Codes

There was concern following the first incident in 2001. The DNFSB came to the site and requested that all NMMD cranes be reviewed on a wide range of topics. A complete list is available.

One of the lines of discussion was the adequacy of hoist braking design. It appeared they had an opinion that a single holding brake was not a sufficient design for our use. That is not true. We discussed this point at length and highlighted the code of record and still current code requirements:

“OSHA 1910.179 requires that each independent hoisting unit of a crane have at least one holding brake and at least one control braking means.” Whiting Crane Handbook pg 146

Any new crane would be designed to the ASME NOG-1 code, among others. The applicable excerpts are attached. In summation the new code has an owner classify the service of the crane into types. We do not credit any NMMD cranes (reactors or canyons) as preventing off-site exposure. We credit the building structure itself. Our cranes would be a type II or III. This would follow the same logic as the Whiting handbook with one holding brake and one controlling brake.

They also tried to tie our definition of a critical load from a hoisting and rigging view to the critical load in NOG-1. These are separate definitions and do not apply. The reactors do “critical lifts” per H&R procedures. This is not to mean that the loads lifted meet the definition of NOG-1 “critical loads”. This is all mute given that our equipment was designed to the code of record at the time. Upgrades are not required to meet revisions of codes unless chosen by the owner.

The other interesting note is that the S-area cranes have a secondary holding brake. These cranes are classified as Safety Significant and credited in the safety analysis to prevent criticality scenarios.

Design

The bottom line is that the reactor cranes functioned exactly per design for a brake failure. The load in each case was lowered under controlled braking. It would have been possible in an emergency situation for the operator to operate the hoist in the up direction to stop the decent and move the load to a safe location. The training may not be adequate, but the design makes this possible.

The design of all cranes is similar. There are always specific differences due to environmental and control needs. The specifics here are that the brake systems in question are identical in respect to shoes and actuation. They differ in the retaining hardware and adjustment. The H&F canyon cranes have SESA (Solenoid Encapsulated Self Adjusting) brakes. This type of brake adjusts due to brake liner wear. A manually adjusted friction brake must have the adjustment nut turned as the liners wear. This configuration is more likely to encounter problems with brake slipping. There would then be less preload on the nut and opportunity for vibration to work the nut loose.

The retaining hardware is also different. The retaining nut is a “flexloc” nut. This refers to a nut with the last few threads cut with insufficient clearance. That means the last threads are tighter. The last portion of the nut is separated into sections. These sections spread out diametrically to give the required clearance for the nut to be placed onto the shaft. This creates a friction locking action. The brake drums have the same type of nut.

These differences mean that the H-area hoists should not see the same failure. A semi-annual PM is performed which covers brake inspection. It was last performed in October for both cranes in H-area.

Inspection

A visual inspection was performed on the NHC and NWC in H-canyon following the latest incident. There were no problems reported with the brakes. Information was shared with F-area personnel. I believe they were going to take a similar look on their next scheduled entry.

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crane, Type I: a crane that is used to handle a

critical load. It shall be designed and constructed

so that it will remain in place and support the

critical load during and after a seismic event, but

does not have to be operational after this event.

Single failure-proof features shall be included so

that any credible failure of a single component will

not result in the loss of capability to stop and hold

the critical load.

crane, Type II: a crane that is not used to handle

a critical load. It shall be designed and constructed

so that it will remain in place with or without a

load during a seismic event; however, the crane need not support the load nor be operational during and after such an event. Single failure-proof features are not required.

crane, Type III: a crane that is not used to handle a critical load; no seismic considerations are necessary, and no single failure-proof features are required.

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load, critical: any lifted load whose uncontrolled movement or release could adversely affect any safety-related system when such a system is required for unit safety or could result in potential off-site exposure in excess of the limit determined by the purchaser.

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6422.2 Hoists on Types II and III Cranes and Hoists That Do Not Handle Critical Loads on Type I Cranes. At least one holding brake shall be provided. Each brake shall have not less than the following percentage of the rated load hoisting torque

at the point where the brake(s) is applied:

(a) 125% when used with a control braking means

other than mechanical;

(b) 100% when used with a mechanical control

braking means;

(c) 100% if two holding brakes are provided.

Drawings

BPF219332 Sheet 108, 109, 110

BPF218884 Sheet 124, 125, 208
Action Completed: 3/29/2004

Organization: H Area Completion Projects (Print) Assigned To: G.M. Haas
Evaluation:
Action Completed: Not Completed

Organization: Laboratories (Print) Assigned To: M.W. Pitts
Evaluation: Laboratories 772-1F Cell Crane

The 772-1F Cell Crane was visually inspected to ensure that a brake system similar to the one in Spent Fuels did not exist. The crane is a 1/2 ton Yale with an enclosed brake assembly off of the main drum. This type of hoist typically does not use a brake system configuration similar to the one which failed in Spent Fuels. Our present plans are not to put this crane back into service. If the crane ever was required in the future, a complete inspection would be required to place it back into service. Part of this inspection includes the brake assembly unit.
Action Completed: 3/16/2004

Organization: Liquid Waste Disposition Projects (Print) Assigned To: M.M. Brown
Evaluation:
Action Completed: Not Completed

Organization: Nuclear Materials Management (Print) Assigned To: J.M. Dukes
Evaluation: K area has retired both the 100 & 85 Ton cranes. 235-F has no over head cranes.

Action Completed: 3/29/2004

Organization: Nuclear Nonproliferation Programs (Print) Assigned To: Dick Tansky

Evaluation: No Action Warranted. Nuclear Nonproliferation Programs projects except for HEU Blend-down are in the design phase. Therefore, there are no actual facilities under construction or in operation at this time. HEU facilities are operated by Closure Business Unit.

Action Completed: 3/3/2004

Organization: Project Management Services (Print) Assigned To: L.J. Lamberth

Evaluation: Project Management Services has completed their evaluation and determined that this Lesson Learned is not applicable to Project Management Services.

Action Completed: 3/9/2004

Organization: Savannah River Technology Center (Print) Assigned To: W.A. Stiger

Evaluation:

1. Events as described in this Lessons Learned shall be thoroughly reviewed by all applicable crane engineering, maintenance, inspection, and operating personnel. Due Date: 4/23.

2. Overhead crane inspection procedures shall be evaluated and revised as necessary. Due Date 7/29

3. Each Design Authority Engineer (DAE)/Cognizant Technical Function (CTF) responsible for facility cranes (including shop cranes) shall ensure inspections and preventative maintenance activities are performed in accordance with all applicable standards and manufacturer's recommendations. The DAE/CTF should understand the basic inspection techniques and acceptance/rejection criteria utilized by the crane inspection group. The DAE/CTF should then determine if additional/enhanced inspections and/or maintenance requirements are needed.

Due Date 7/29.

4. Each DAE responsible for cranes shall ensure responsibilities are performed in accordance with Manual E7, Procedure 1.10, Section 4.5 especially with respect to the following:

- Evaluating and trending as applicable, performance monitoring results to ensure safety basis and operating limits are maintained in accordance with established acceptance criteria and corrective actions are initiated, as required.

- Conducting and/or observing equipment performace monitoring to maintain system reliability and operability. Business Units/Project Organizations should perform the following Corrective Actions to Prevent Recurrence. Due Dae 7/29

Action Completed: Not Completed

Organization: Site D&D (Print) Assigned To: George Morris
Evaluation:
Action Completed: Not Completed

Organization: Soil & Groundwater Closure Projects (Print) Assigned To: J. Hart
Evaluation: This is not applicable to SGCP. The organization does not have this type of equipment. We currently do not have and do not intend to utilize overhead cranes of this type or nature.
Action Completed: 3/31/2004

Organization: Solid Waste and Infrastructure (Print) Assigned To: R.B. Meese
Evaluation: We have evaluated the inspection procedure and are currently in the process of revising it. The projected implementation date of the totally revised procedure (Manual Y10.9, SOP 9-32054A) is 5/1/04.
Action Completed: 3/24/2004

Organization: Spent Fuels Projects (Print) Assigned To: Don Zahaba
Evaluation:
Action Completed: Not Completed

Organization: Technical and Quality Services (Print) Assigned To: Rod Hutto
Evaluation:
Action Completed: Not Completed

Organization: Waste Solidification Projects (Print) Assigned To: M.M. Brown
Evaluation:
Action Completed: Not Completed

WSRC Lessons Learned Program Information System

Title: 120-Ton B-Trolley Crane Failure (SRS)
Identifier: 2004-LL-0022 (Bulletin)
Date: 3/3/2004
Corrective Actions: Yes

Lesson Learned Statement:

Unexpected loss of control functions when operating overhead cranes can potentially damage facility equipment, loads, or result in injury to personnel.

Discussion:

On 12/09/2003, the 120-ton capacity pendant controlled crane located in the 105-L facility sustained a holding brake failure on the "B" trolley hoist. The "B" trolley hoist is one of two independently operated 60-ton capacity hoists installed on the 120-ton crane structure. The operator of the crane at the time of the event had lifted an empty International Standards Organization (ISO) container a few inches off the floor. The operator stopped the hoisting motion in order to ensure the crane braking system was operating properly. Upon the completion of this check the operator then proceeded to raise the load to a height of approximately three (3) feet. When the hoist button was released on the pendant control, the load began to descend toward the floor. The operator pressed the emergency stop button in an attempt to stop the unwanted downward travel of the load. However, this action had no effect upon the slow descent. The ISO container continued its downward motion until it came to rest on the floor. There were no injuries to personnel or damage to equipment.

See Occurrence Report SR--WSRC-LAREA-2003-0003 for additional information.

Attachments:

Attachment 1
Attachment 2

Analysis:

An investigation to discover the cause of the load descent revealed a jam nut which had been installed on the armature (shoe) brake adjustment rod had backed off from the adjustment nut. This allowed the adjustment nut to also back off and ultimately result in excessive brake shoe clearance. The excessive clearance therefore resulted the brake´s inability to hold the load. However, as required by the 29 CFR, 1910.179 (OSHA), the crane did contain a control braking means such as a regenerative, dynamic or countertorque braking system capable of maintaining safe lowering speeds of rated loads. This system performed as designed and allowed to load to descend in a very slow manner.

Subsequent to the initial event a decision was made to check other similar cranes within the Spent Fuels facilities. During this inspection it was also discovered that a jam nut on the 85 ton capacity crane brake system in 105-L was not installed as required by design. The installed adjustment nut had not moved as a result of the missing jam nut, and therefore the crane had not experienced any operational abnormalities.

Periodic inspections had been performed on both cranes in November 2003. There were no noted deficiencies at the time of the inspection. The overhead crane inspector reported the jam nut was secure on the 120-ton crane brake during the inspection. Another inspector reported that no jam nut was

installed at the time of inspection on the 85-ton crane. It was his belief that no jam nut was required in this location due the installation of what he thought was a locking type nut **(see Attachment 1 for 120-ton crane brake picture).** The inspector indicated that he had inspected this crane since it was refurbished in 1999. Since brake clearance measurements were consistent during each inspection he felt there was no reason to suspect a problem. The inspector also conveyed that because other adjustment locations contained a different type of adjustment nut and washer or jam nut configuration, the as found condition on the 85-ton crane was as designed. However, the crane print specifies a jam nut in addition to the adjustment nut as shown in the attached picture **(see Attachment 2 for 85-ton crane picture).**

In addition to periodic inspections being performed every three months on both the 120- and 85-ton cranes, a preventive maintenance (PM) procedure was also performed by Spent Fuels Maintenance personnel. The intent of this procedure was to inspect and adjust the crane brake system as well as perform other related maintenance functions as recommended by the crane manufacturer.

The jam nut that was used on the 120-ton crane "B" trolley hoist was a typical hex nut that contained smooth flat bearing surfaces. Facility engineering has decided to replace the previous jam nut with a nut of the self locking variety for this application. A similar self locking nut will also be installed and used as a jam nut on the 85-ton crane as well.

Due to these occurrences whereby one jam nut backed off allowing excessive brake shoe clearance and subsequently allowing the hoisted load to descend, and another jam nut apparently never installed as specified by the print, facilities and inspection personnel should take measures to prevent recurrence.

This event is similar to an event with a 30-ton capacity brake failure that occurred in 2001 (See Occurrence Report SR--WSRC-LAREA-2001-0011). In this event a lock washer was not installed as required by the print, and a retaining nut on the outboard side of the holding brake drum backed off, thereby allowing the brake drum to slide off the motor shaft. It was determined that due to the location and design of the nut, a visual periodic inspection would not have discovered the missing lock washer. This crane had also been refurbished in 1999.

WSRC Action Already Taken In Response to This Event

In order to ensure other facility overhead cranes did not have deficiencies or conditions as described in this Bulletin, the following action was taken:

A listing of identified site cranes containing shoe brake systems similar to the one described in this event provided by the SRS Site Rigging Authority. An inspection of the brake systems on those cranes was completed 01/22/04. All fasteners were found to be installed and secured in accordance with design requirements.

Recommendation:

The Following Lessons Learned Were Identified Regarding This Event

- While crane operation personnel are required to test a crane´s holding brake capabilities after initially raising a load a few inches, it is possible that subsequent failure or maladjustment of crane components can result in loss of load control. Operators should always remain diligent to ensure personnel in the area are a safe distance from any suspended loads.

- As found conditions on overhead crane systems may not be installed as specified by crane prints. Lessons learned relative to the jam nut issue on overhead crane brake systems may apply to other types of mechanical systems using jam nut configurations or other types of fastener locking devices.

- Nuts, washers, jam nuts, fasteners, locking devices, etc. that are installed on systems may not be the best choice for some applications. In this event the crane print specified a jam nut to be installed. However, it was determined that the original installed type of jam nut used in this application may not have been adequate. The Design Authority has initiated a change to a different type of nut which has now replaced the original installation.

- Lessons learned from a similar event that occurred in the same facility in 2001 were not broadened to focus on other critical fastener locking devices.

Corrective Actions:

Project Lessons Learned Coordinators identified at the end of this section are responsible for ensuring that the following Corrective Actions are tracked & performed within each of their respective Business Units/Project Areas.

1. Events as described in this Lessons Learned shall be thoroughly reviewed by all applicable crane engineering, maintenance, inspection, and operating personnel.

2. The inspector training program shall be revised to include more defined acceptance/rejection criteria, and inspection techniques relative to the inspection of crane components. **This Action is specific to the Facility Support Services Business Unit, Technical & Quality Services Maintenance Services.**

3. Overhead crane inspection procedures shall be evaluated and revised as necessary.

4. Each Design Authority Engineer (DAE)/Cognizant Technical Function (CTF) responsible for facility cranes (including shop cranes) shall ensure inspections and preventative maintenance activities are performed in accordance with all applicable standards and manufacturer´s recommendations. The DAE/CTF should understand the basic inspection techniques and acceptance/rejection criteria utilized by the crane inspection group. The DAE/CTF should then determine if additional/enhanced inspections and/or maintenance requirements are needed.

5. Each DAE responsible for cranes shall ensure responsibilities are performed in accordance with Manual E7, Procedure 1.10, Section 4.5 especially with respect to the following:

- Evaluating and trending as applicable, performance monitoring results to ensure safety basis and operating limits are maintained in accordance with established acceptance criteria and corrective actions are initiated, as required.

- Conducting and/or observing equipment performace monitoring to maintain system reliability and operability. Business Units/Project Organizations should perform the following Corrective Actions to Prevent Recurrence.

The following Project Lessons Learned Coordinators are responsible for tracking Corrective Action closure for each Project Area and reporting results to the Site Lessons Learned Coordinator by 4/19/2004.

G.M. Haas - H Area Completion Projects
P.S. Gary - F Area Closure Projects
A.R. Beckwith - Defense Programs
M.M. Brown - Liquid Waste Disposition Projects
M.M. Brown - Waste Solidification Projects
R.B. Meese - Solid Waste and Infrastructure
J. Hart - Soil & Groundwater Closure Projects
W.A. Stiger - Savannah River Technology Center
L.J. Lamberth - Project Management Services
L.J. Lamberth - Construction and Startup Services
L.J. Lamberth - Design Services
J.M. Dukes - Nuclear Materials Management
M.W. Pitts - Laboratories
C.R. Hutto, Jr. - Technical and Quality Services
Dick Tansky - Nuclear Nonproliferation Programs
Don Zahaba - Spent Fuels Projects
George Morris - Site D&D

Contacts:

WSRC - Mike Berry (803) 557-4657

References:

SR--WSRC-LAREA-2003-0003, 120 Ton B-Trolley Crane Failure

SR--WSRC-LAREA-2001-0011, Failure of 30 Ton Crane Brake

WSRC Manual E7, Conduct of Engineering

Keywords:

Nuts, Overhead

Activity:

Hoisting and Rigging

Hazard:

Elevated Work/Falling Objects, Mechanical/Structural
